GIFFORD, KRASS, GROH, SPRINKLE, ANDERSON & CITKOWSKI, P.C. 280 N. OLD WOODWARD AVENUE, STE. 400, BIRMINGHAM, MICHIGAN 48009-5394 (248) 647-6000

SPECIFICATION AMENDMENTS

Page 4, line 18 to page 5, line 1:

B1

Figure 1 shows a laser-aided, computer-controlled DMD system schematically at 102 [[10]] being used to apply layers of material [[20]] on a substrate [[30]] to fabricate an object or cladding. The system is preferably equipped with feedback monitoring, better seen in Figure 2, to control of the dimensions and overall geometry of the fabricated article. The geometry of the article is provided by a computer-aided design (CAD) system.

Page 5, lines 8-15:

B2

The factors that affect the dimensions of material deposition include laser power, beam diameter, temporal and spatial distribution of the beam, interaction time, and powder flow rate. Adequate monitoring and control of laser power, in particular, has a critical effect on the ability to fabricate completed parts and products with complex geometries and within control tolerances. Accordingly, the feedback controller [[80]] 104 of the direct material deposition system typically cooperates directly with the numerical controller [[90]] 108, which, itself, controls all functions of the direct material deposition system, including laser power.

Page 5, lines 16-22:

B3

The laser source 110 of the DMD system is ~~mounted~~ redirected at 112 above the substrate [[30]] and a layer of material [[20]] is deposited according to the description of the object. The laser has sufficient density to create a melt pool with the desired composition of substrate or previously deposited layer and cladding powder. The cladding powder, typically metallic, is sprayed on the substrate preferably through a laser spray nozzle with a concentric opening for the laser beam, as described in U.S. Patent No. 4,724,299, so that the powder exits the nozzle co-axially with the beam.

Page 6, line 18 to page 7, line 4:

B4

Figure 3 is a flow chart for the optical feedback control loop for the diode laser based DMD system. At block [[301]] 302 an optical signal is obtained from the deposition zone. At block 304, logic

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circuitry is used to modulate the laser power, with a signal being sent to the diode laser power supply at a frequency to 0 to 20 KHz, or higher frequency, depending upon the response time of the device. This is delivered to the laser deposition zone at 308 in the form of optical energy, but the question regarding height (or other physical characteristics) being asked at decision block 310. If the height or other characteristics is acceptable, the process continues at 312; otherwise, control is returned to block 302 for the receipt of a new optical signal.